

(Malecki et al., 2020). Similarly, engaging communities in the development of messaging and understanding their literacy levels can significantly improve the effectiveness of communication (Ghio et al., 2021; Lindsey et al., 2022).

### 3.2 Crafting clear and relevant messages

Crafting messages that are clear, relevant, and tailored to the audience's needs is crucial. Effective messages should be fact-based, transparent, and empathetic (Leurer et al., 2022). They should also be delivered by credible sources and framed to increase understanding, social responsibility, and personal control (Ghio et al., 2021). Multi-media approaches, combining text and diagrams, have been found to be more effective than single media approaches. Additionally, messages should address both the hazard and the outrage components of risk perception, as these shape public acceptance and adherence to health interventions (Figure 1).

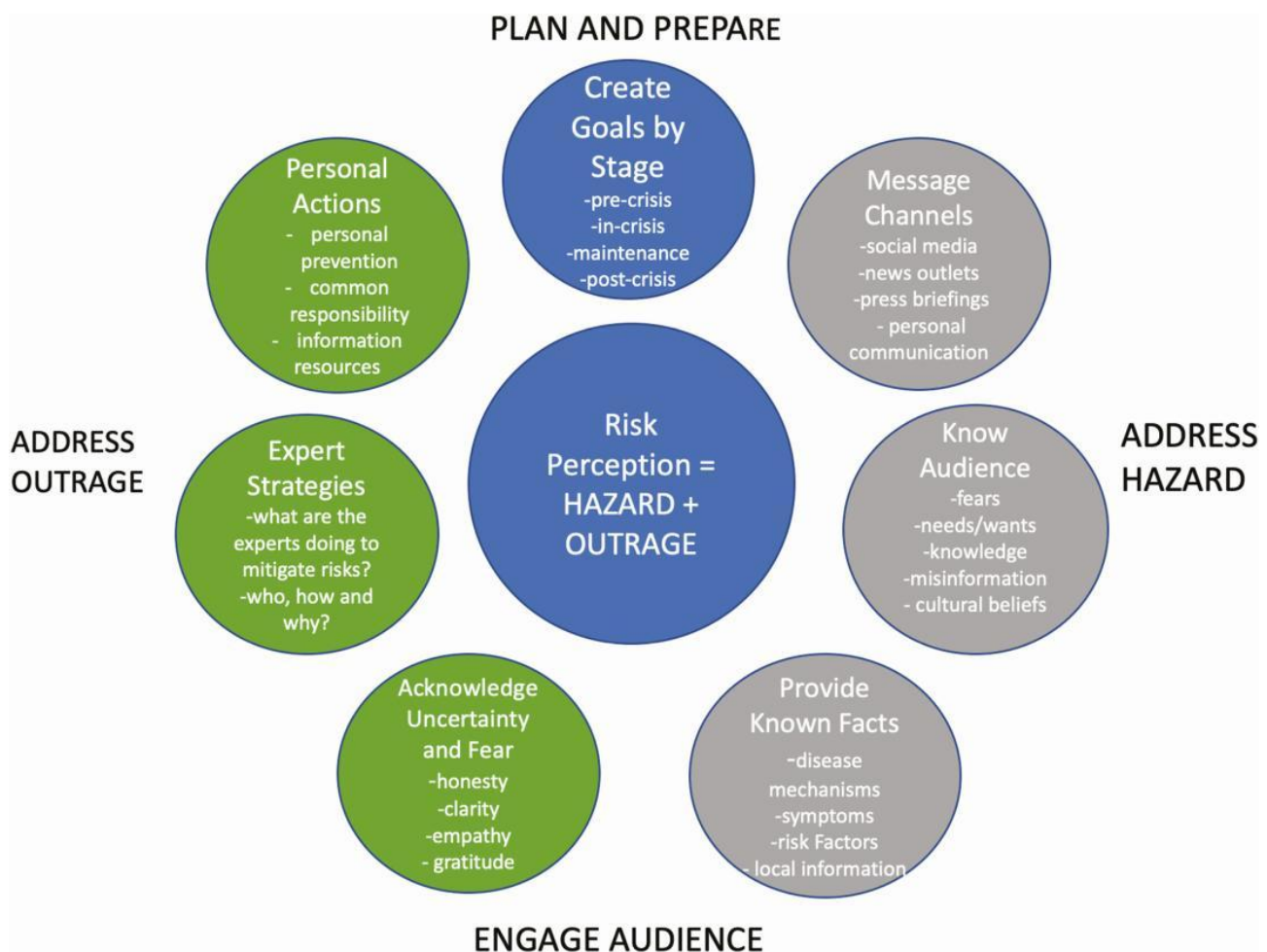


Figure 1 Crisis communication: addressing hazard+outrage during the COVID 19 pandemic (Adopted from Malecki et al., 2020)

The research of Malecki et al. (2020) outlines an effective framework for crisis communication during the COVID-19 pandemic, emphasizing the need to address both hazard and public outrage to manage risk perception. Central to the framework is the formula: Risk Perception = Hazard + Outrage. The model advocates for a comprehensive approach divided into four main strategies: Plan and Prepare, Address Outrage, Address Hazard, and Engage Audience. In the Plan and Prepare phase, it is crucial to set goals tailored to different crisis stages (pre-crisis, in-crisis, maintenance, post-crisis) and select appropriate message channels like social media, news outlets, and personal communication. Addressing outrage involves acknowledging public fears and uncertainties with honesty, clarity, empathy, and gratitude, while communicating expert strategies to mitigate risks effectively. Addressing the hazard requires providing accurate information about the crisis, including disease mechanisms, symptoms, and risk factors. Engaging the audience involves understanding their fears, needs, and cultural beliefs,